

Reply To Examiner's Remarks

Claims 4, 9-12 and 48, as amended, are presented for consideration. Claims 1-3, 5-8 and 13-47 are canceled.

The Examiner rejects claims 3-4, 6, 9-12 and 48 under 35 U.S.C. §112, second paragraph as indefinite and not supported by the specification.

The Examiner asserts that there is no support for the presence of tantalum disilicide when there is only one (coating) layer on the substrate. The Applicants view of the structure of the coating recited in independent claim 48 is that of a substrate, with a first layer (sub-layer) of coating adjacent to the substrate and a second layer of coating that is positioned so that the first layer lies between the substrate and the second layer, as recited in the second paragraph of claim 48. With this view adopted, the Applicants agree with the Examiner that the specification does not support inclusion of tantalum disilicide in the first layer (sub-layer). Claim 48 also recites that the first layer (sub-layer) lies between the substrate and the second layer. The specification does support inclusion of tantalum disilicide in the second layer, but not in the first layer. The Applicants do not contend otherwise in the claims presented here, and amended claim 48 is consistent with this view and with the Examiner's assertion.

The Examiner notes that claim 48 recites that "the composition of the second layer is chosen so that a CTE of the second layer is approximately the same as a CTE of the first layer" and that there is no support for this recitation. The Examiner is correct here. Claim 48 is amended here to recite that the composition of a combination of the first layer and the second layer is chosen so that a CTE of the combination is approximately the same as a CTE of the substrate. This revised statement is supported by paragraphs [0032] and [0035].

The Examiner notes that there is no support for the recitation in claim 6 that the sub-layer (first layer) comprises tantalum disilicide. Claim 6 is canceled herein.

The Examiner notes that inclusion of the phrase “such as silicon hexaboride” in claim 48 is improper and render claim 48 indefinite. Claim 48 is amended to remove this language, claim 3 is canceled herein, and claim 4 is amended herein to depend directly upon claim 48, as amended. The Applicants thank the Examiner for pointing out the errors here.

The Applicants have responded to the Examiner’s four rejections, amending claims 4 and 48 to remove the improper language. The Applicants believe that claims 4, 9-12 and 48, as amended, are allowable and that the application is in proper form for allowance. The Applicants request that the Examiner pass the application, including claims 4, 9-12 and 48, as amended, to issue as a U.S. patent.

Respectfully Submitted,

/john schipper/

John Schipper

Patent representative for Applicants

Date: 04 August 2009